

Claims

1. A medical stethoscope head (1) comprising a body (2) with an inlet pipe (3) and at least one diaphragm portion (4) provided with a diaphragm (5) at its lower surface (10'), characterized in that at least one identifying-personalizing ring (11) provided with identifying-personalizing means (14) is mounted in any area of an upper surface (10) of said diaphragm portion (4), opposite to said diaphragm (5).

2. A medical stethoscope head according to claim 1, characterized in that the identifying-personalizing ring (11), at its surface adjacent to the diaphragm portion (4), is provided with at least one locating element (16) for explicit locating the identifying-personalizing ring (11) in defined angular position in relation to an axis (3') of said inlet pipe (3) of said body (2).

3. A medical stethoscope head according to claim 1 or 2, characterized in that the identifying-personalizing ring (11), at its at least one side surface (13, 13'), is provided with a fastening element (17) for disconnectable joining the identifying-personalizing ring (11) to the diaphragm portion (4).

4. A medical stethoscope head according to claim 1 or 2, characterized in that the identifying-personalizing ring (11), at its at least one upper surface (12) or lower surface (12'), is provided with at least one threaded hole (17"), in which an fastening element (17) for fixing an identifying-personalizing ring (11) to the diaphragm portion (4) is situated.

5. A medical stethoscope head according to claim 1 or 2, characterized in that the identifying-personalizing ring (11) is composed of at least two separate members.

6. A medical stethoscope head according to claim 1, characterized in that the identifying-personalizing ring (11) is made of any material or set of materials, which are connected each other in any combination.

7. A medical stethoscope head according to claim 1, characterized in that the identifying-personalizing ring (11) is an integral part with an elastic fastening ring (7) holding a diaphragm (5).

8. An identifying-personalizing ring (11) for a medical stethoscope head (1), comprising an upper and lower surfaces (12, 12') and two side surfaces, outer (13) and inner (13'), characterized in that any identifying-personalizing means (14) is placed at said upper surface (12) and at least one locating element (16) is placed at

said lower surface (12'), adjacent to a diaphragm portion (4), for explicit locating the identifying-personalizing ring (14) in defined angular position in relation to an axis (3') of said inlet pipe (3) of said body (2).

9. An identifying-personalizing ring according to claim 8, characterized in that a fastening element (17), preferably thread, catch or recess, for connecting identifying-personalizing ring (14) with a diaphragm portion (4) is placed at said at least one side surface (13, 13') of the identifying-personalizing ring (14).

10. An identifying-personalizing ring according to claim 8, characterized in that a fastening element (17), which is in a form of a hole for placing a screw or a pin, is placed at said lower surface (12') of the identifying-personalizing ring.

11. An identifying-personalizing ring according to claim 1, characterized in that it comprises at least two members.

12. An identifying-personalizing ring according to claim 8, characterized in that it is made of any material or set of materials connected each other in any combination.

13. An identifying-personalizing ring according to claim 8, characterized in that an elastic fastening ring (7), being a integral part of the identifying-personalizing ring (14) is attached to said outer side surface (13).

14. A medical stethoscope head (1) comprising a body (2) having an inlet pipe (3) and at least one diaphragm portion (4), which is provided with diaphragm (5) at its lower surface (10'), characterized in that said diaphragm portion (4), at its upper surface (10), opposite to a diaphragm (5), is provided with any identifying-personalizing means (14), and said diaphragm portion (4) is disconnectable joined with said body (2) by at least one locating-connecting means (20), allowing exchanging of a diaphragm portion (4), and holding defined angular position of said diaphragm portion (4) in relation to an axis (3') of said inlet pipe (3) of said body (2).

15. A medical stethoscope head according to claim 14, characterized in that said identifying-personalizing means (14) of a diaphragm portion (4) is its area distinguished by any elements and by any techniques.

16. A medical stethoscope head according to claim 14, characterized in that said identifying-personalizing means (14) is an identifying-personalizing ring (11) which is placed in any area at an upper surface (10) of a diaphragm portion (4) and is provided with at least one locating element (16) for explicit locating the identifying-personalizing ring (11) in defined angular position in relation to an axis (3') of said

inlet pipe (3) of said body (2).

17. A medical stethoscope head according to claim 14, characterized in that said locating-connecting means (20) is selected from a screw joint, pin joint, bayonet joint and snap joint.

18. A diaphragm portion (4) for a medical stethoscope head (1) having concave lower surface, at which a diaphragm (5) is fastened, and opposite upper surface, characterized in that it is provided with any identifying-personalizing means (14) at its upper surface (10), and is provided with at least one element (21) for disconnectable joining it to a body (2) of a medical stethoscope head (1), and further having at least one locating element (22) for explicit locating the diaphragm portion (4) in defined angular position in relation to an axis (3') of said inlet pipe (3) of said body (2).

19. A diaphragm portion according to claim 18, characterized in that said identifying-personalizing means (14) is an area which is distinguished by any elements and/or by any techniques.

20. A diaphragm portion according to claim 18, characterized in that at its upper surface (10) an annular recess (15) for placing an identifying-personalizing ring (11) is formed.

AMENDED CLAIMS and STATEMENT

[Received by the International Bureau on 28 December 2004 (28.12.2004):
original claims 1-20 replaced by amended claims 1-20]

Claims amended under Article 19 (1)

1. A medical stethoscope head (1) comprising:
a body (2);
an inlet pipe (3) extending from said body (2) and having an axis (3');
a diaphragm cup (4) having an upper surface (10) and a lower surface (10') opposite to said upper surface (10);
a diaphragm (5) held at said lower surface (10') of said diaphragm cup (4) by a fastening ring (7);
characterised by comprising:
at least one ring (11) for identifying and personalizing a stethoscope; said identifying-personalizing ring (11) having an upper surface (12), a lower surface (12'), an outer side surface (13), an inner side surface (13') and said identifying-personalizing ring (11) being located with its lower surface (12') on said upper surface (10) of said diaphragm cup (4) in defined angular position in relation to said axis (3') of said inlet pipe (3);
means (14) for identifying and personalizing provided on said upper surface (12) of said at least one identifying-personalizing ring (11) for personalizing and identifying a stethoscope.
2. A medical stethoscope head according to claim 1, characterised in that at its lower surface (12') said identifying-personalizing ring (11) is provided with at least one locating element (16) being adopted for cooperating with means provided on said diaphragm cup (2) for explicit locating said identifying-personalizing ring (11) in defined angular position in relation to said axis (3') of said inlet pipe (3).
3. A medical stethoscope head according to claim 1 or 2, characterised in that a fastening element (17), preferably a thread, catch or recess, is provided on one of said side surface (13, 13') of said identifying-personalizing ring (11) for removably secured said identifying-personalizing ring (11) to said diaphragm cup (4).
4. A medical stethoscope head according to claim 1 or 2, characterised in that on one of its upper surface (12) and lower surface (12') said identifying-personalizing ring (11) is provided with at least one threaded hole (17'') in which a fastening element (17) is situated for securing said identifying-personalizing ring (11) to the diaphragm cup (4).
5. A medical stethoscope head according to claim 1 or 2, characterised in that said identifying-personalizing ring (11) is composed of at least two separate members.

6. A medical stethoscope head according to claim 1, characterised in that said identifying-personalizing ring (11) is made of any material or set of materials, which are connected each other in any combination.

7. A medical stethoscope head according to claim 1, characterised in that said fastening ring (7) is elastic and said identifying-personalizing ring (11) is formed integrally with said fastening ring (7).

8. A ring for identifying and personalizing a medical stethoscope head provided with a body (2), an inlet pipe (3) extending from said body (2) and having an axis (3'), a diaphragm cup (4) having an upper surface (10) and a lower surface (10') and a diaphragm (5) mounted at said lower surface (10') of said diaphragm cup (4); said identifying-personalizing ring having an upper surface (12) and lower surface (12') and two side surfaces, outer (13) and inner (13'),

characterised by comprising:

means (14) for identifying and personalizing a medical stethoscope, said identifying-personalizing means placed on said upper surface (12) of said identifying-personalizing ring (11);

at least one locating element (16,161) placed on said lower surface (12') of said ring (11) and adopted for cooperating with means provided on said diaphragm cup (4) for explicit locating the identifying-personalizing ring (11) in defined angular position in relation to an axis (3') of said inlet pipe (3) of said body (2).

9. An identifying-personalizing ring according to claim 8, characterised in that a fastening element (17), preferably thread, catch or recess, for connecting said ring (14) to said diaphragm cup (4) is placed at said at least one side surface (13, 13') of said ring (14).

10. An identifying-personalizing ring according to claim 8, characterised in that a fastening element (17), which is in a form of a hole for placing a screw or a pin, is placed on said lower surface (12') of said ring (11).

11. An identifying-personalizing ring according to claim 1, characterised in that it comprises at least two members.

12. An identifying-personalizing ring according to claim 8, characterised in that it is made of any material or set of materials connected each other in any combination.

13. An identifying-personalizing ring according to claim 8, characterised in that an elastic fastening ring (7), being a integral part of said ring (14) is attached to said its outer side surface (13).

14. A medical stethoscope head (1) comprising:
a body (2);

an inlet pipe (3) extending from said body (2) and having an axis (3');

at least one diaphragm cup (4) having an upper surface (10), a lower surface (10') opposite to said upper surface (10) and being removably secured to said body (2) for allowing exchanging of said diaphragm cup (4);

a diaphragm (5) held at said lower surface (10') of said diaphragm cup (4) by a fastening ring (7);

characterised by comprising:

means (14) for identifying and personalizing a stethoscope, said identifying-personalizing means provided on said upper surface (10) of said diaphragm cup (4);

means (20) for locating and connecting said diaphragm cup (4) to said body (2) provided in said diaphragm cup (4) and in said body (2) and cooperating with each other for removably secured said diaphragm cup (4) to said body (2) in defined angular position in relation to said axis (3') of said inlet pipe (2).

15. A medical stethoscope head according to claim 14, characterised in that said identifying-personalizing means (14) of said diaphragm cup (4) comprises a selected area of said upper surface (10) of said diaphragm cup (4) distinguished by any decorative elements or by any other techniques.

16. A medical stethoscope head according to claim 14, characterised in that said identifying-personalizing means (14) of said diaphragm cup (4) comprises a ring (11) for identifying and personalizing a stethoscope, said identifying-personalizing ring (11) having an upper surface (12), a lower surface (12'), an outer side surface (13), an inner side surface (13') and said identifying-personalizing ring (11) being located with its lower surface (12') on said upper surface (10) of said diaphragm cup (4) in defined angular position in relation to said axis (3') of said inlet pipe (3) of said body (2).

17. A medical stethoscope head according to claim 14, characterised in that said locating-connecting means (20) is selected from a screw joint, pin joint, bayonet joint and snap joint.

18. A diaphragm cup (4) for a medical stethoscope head (1) having a body (2) provided with an inlet pipe (3) extending from said body (2) and having an axis (3'); said diaphragm cup (4) having an upper surface (10) and a concave lower surface (10') to which a diaphragm (5) is mounted, and being provided with at least one joining element (21) for removably secured said diaphragm cup (4) to a body (2) of a medical stethoscope head (1),

characterised by comprising:

means (14) for personalizing and identifying a stethoscope head (1) placed at upper surface (10) of said diaphragm cup (4);

at least one locating element (22) adopted for cooperating with means provided on

said body (2) for explicit locating said diaphragm cup (4) in said body (2) in defined angular position in relation to said axis (3') of said inlet pipe (3) of said body (2).

19. A diaphragm cup according to claim 18, characterised by that said identifying-personalizing means (14) comprises a selected area of said upper surface (10) of said diaphragm cup (4) distinguished by any decorative elements or by any other techniques.

20. A diaphragm cup according to claim 18, characterised by that on its upper surface (10) an annular recess (15) is formed for placing an identifying-personalizing ring (11).

STATEMENT UNDER ARTICLE 19 (1)

There are amendments in the originally filed claims of the international application PCT/PL2004/000064 made in the course of the international procedure of the PCT proceeding and in relation to the received International Search Report.

The claims 1 to 20 replace the originally filed claims 1 to 20.

The amended claims 1, 8, 14 and 18 encompass the features of the originally filed claims 1, 8, 14 and 18 and the features depicted in the description and in the drawings.

The claim 14 has been also amended taking into account the disclosure of the patent document US 5747752 cited in the International Search Report.